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EXTENSIONS OF WATER MAINS¹

MR. D. R. GWINN:² I believe the people who enjoy the benefit of extensions of that kind should pay for the improvements. There are real estate men in the country who believe that water departments and water companies should make large investments for their benefit, that is, to enable them to sell their lots. I confess that at one time we fell for that kind of a proposition on the part of the real estate men. Recently we had a gentlemen come into the office who had lots some distance beyond our distribution system. He wanted to know if he couldn't get water mains out there. I told him perhaps he might under certain conditions. "Well, he said, "I want to sell my lots up there and people will take water." "Yes, I presume they will sometime, but if you would like to have that main extended, we will give you an estimate of what it will cost to make the extension. You give us a check in accordance with the estimate. If the cost should exceed the estimate, we will expect you to pay the difference after the work is done. We will give you an opportunity to check up on the cost. We will keep a careful record of the time and material and will give you the benefit of the prices we secure from the manufacturers for the material, plus 10 per cent for supervision. If the cost should not be equal to the estimate, we will then pay back to you the difference between what you paid and the actual cost." "Well," he said, "isn't there any chance of my getting the money back again?" "In Council Bluffs, Iowa, they do pay back the money on a similar plan, but they pay it to the then owners of the property. If you go to the expense of an improvement of that kind, you will add it to the cost of the lot, \$50 or \$75 or whatever it will be for each lot, just the same as you would charge up the cost of the sidewalks and the setting out of the trees. I will make you another proposition: if, in the future, some time in the distant future, we should have say eight customers using water and paying for the same on each 365 feet of extension and the city should order a

¹ Discussion at the Cleveland Convention, June 9, 1921. Further discussion is desired and should be sent to the Editor.

² President, Water Company, Terre Haute, Indiana.

fire hydrant and pay us at the ruling price of \$50 each for a hydrant on each 365 feet, then we will return to you the estimated value of the pipe at that time and the then ruling price for common labor, less 1 per cent per annum for depreciation." I drew it up in the form of a contract and he took it away. He has not come back yet. If he wants water pipe extended so that he can sell his lots, he will have to furnish the money in advance for the extensions.

MR. W. W. BRUSH:³ The discussion of this subject would be most useful by each one telling their own practice and experience. I personally believe that it would be helpful to the members of the Association if we could have papers on this subject as a result of committee work, setting forth the experience and practice of a group of, say, a dozen communities of each size, communities that would be typical in this country. We could then at any time go to this record and see just what other communities of the size of the one we were looking after have been doing. The situation of a municipality is quite different from the situation of a private water company. With the municipality, there is an almost immediate return on the extension of water mains in the form of increased assessments and the resultant increased tax on the land. In New York the practice for many years had been for all extensions to be paid for through the issue of corporate stock. The adjacent property owners thus are not directly assessed for the cost of extending the mains. Under such conditions, you may readily see that there will be a demand made for an extension of the mains to a large extent irrespective of the real need for such extension. Any property owner is perfectly willing to take the chances of the increased cost to him as a result of increased assessments, if he can get a water main in front of his property. It is therefore essential that the department in charge of the water extensions should formulate some sort of rule to guide and determine whether the main shall or shall not be extended. The department is the sole authority to determine whether a main shall be placed in a given street and the size of that main. This is only subject to the control by the Board of Estimate as to the funds allowed and to the passing of the contract for the installation of that main. Neither the Board of Estimate nor any other city

³ Deputy Chief Engineer, Dept. Water Supply, Gas and Electricity, New York, N. Y.

authority, however, can initiate the installation of a main. This rests with the water department.

When an application is received in New York City for the extension of a main in a given street, it is turned into the engineering bureau and a field survey is made to find out the number of houses to be served and to plot the existing mains and hydrants. A sketch is made out on a special form giving information as to whether the street is to grade, whether the title is legally invested in the city or simply by occupancy, and as to whether curbing, pavements, etc., are present. In general we apply this rule, that if there be one house to each one hundred and fifty feet of main that the requested extension is recommended, if the street be approximately to grade. The rule is not altogether a satisfactory rule, and recently we have allowed 100 feet in addition for each additional family to be served. We have given little consideration to the value of the buildings to be served. The custom in New York has been established for so long and there are so many hundreds of miles of street in which mains have been extended under this custom, that it is doubtful whether it would be fairer to make a change which would give us a more logical basis for the extension of mains than to continue with our present system. It would in my judgment, be very helpful to all those communities which are in position to do so, to establish a rule whereby the property directly benefited will bear as large a share of the cost of installation of the main as is practicable.

MR. J. W. McEVOR:⁴ The city I represent has a population of about 40,000 people and we have been working under a plan similar to Detroit on extension of water mains. Where the applicant would guarantee 15 per cent of the cost of a 6-inch main, the extension was made.

Our city has introduced a bill before the legislature at Des Moines, Iowa, for assessing and refunding the cost of a water main to the abutting property on a plan of this kind: Where a number of property owners make application for the extension of a water main or where the water board of a city council, or the city manager of a city manager form of government, deem it advisable to extend a water main, the cost of said extension should be assessed to the abutting properties, on size up to and including a 6-inch main, in the same

⁴ Superintendent, City Water Works, Dubuque, Iowa.

way that assessments are made on a sewer on street improvement. All street intersections should be exempt from any assessments. An estimate should be made of the cost of the proposed extension and filed with the City Council. The City Council then levies the assessment against all property served, and on failure to pay the assessment at a specified time the property then might be sold for non-payment. The bill also provides a refund clause. As each connection is made the assessment for fifty running feet, for a fifty foot frontage, shall be refunded to each abutter making a connection with the main, installing a meter and becoming a live consumer. The idea is to compel the abutter who fails or refuses to connect, to carry the cost of the improvement until such time that he, or some one else makes connection to the main. In this way the water department will be able to extend mains through unserved districts and compel the speculator who is holding his idle property for higher prices to carry the load until such time as his property is improved and connected and the water department is receiving a return on the improvement.

We hope to have this bill passed at the next session of the legislature. The bill follows:

A BILL FOR AN ACT

To provide for the levying of special assessment upon privately owned property for the payment of extension to water mains by municipally owned water works, prescribing the course of procedure therefore, and authorizing a refund when connections are made therewith.

Be it enacted by the General Assembly of the State of Iowa.

SEC. 1. Cities and towns owning water works, whenever the City Council or Board of Commissioners deem it necessary or advisable to extend water mains into unserved territories or districts, may, by proper resolution, declare such necessary and advisable, and, by following the procedure provided for by law with reference to the construction of sewers, they shall have the power to levy assessments upon privately owned property benefited thereby: Provided, however, that all assessments shall be limited to adjacent or abutting property and shall not be in excess of Twenty-five Per Cent (25%) of the actual value of said property, as now provided by law in the case of special assessments.

SEC. 2. Whenever an assessment is made hereunder it shall remain a lien upon the real estate until paid, and it shall become due and be delinquent as other special assessments and shall be subject to the same penalties for failing to pay the same as now provided by law, including the right of the city to sell the property for such delinquent assessments. Provided, however, that all of the provisions of law with reference to the payment in annual installment shall be applicable hereto.

SEC. 3. The cost of extending water mains in street or alley intersections shall be borne by the city or town. Where streets intersect but do not cross, half of the cost of such extension shall be paid for by the property benefitted thereby. No property shall be subject to more than One (1) assessment for water main extensions unless such property has a greater frontage along said improvement than One Hundred (100) linear feet. If the property has a greater frontage than One Hundred (100) linear feet along said improvement the excess frontage may be assessed for its proportional share of the cost thereof.

SEC. 4. In making assessments upon private property the amount thereof shall be calculated upon the cost of laying six (6) inch pipe and where larger pipe is used the difference in cost between such larger pipe and the six (6) inch pipe shall be paid by the city or town.

SEC. 5. When any real estate, which has been assessed as herein provided, connects with such water mains, there shall be returned to the person entitled such a portion of the assessment as will amount to the cost of laying fifty (50) linear feet of main, as shown by such assessment, or return shall be made by allowing for each fifty (50) linear feet assessed One (1) connection, until the whole amount of the assessment has been returned, less the interest paid thereon. Provided, however, that whenever any lot or parcel of real estate, having a frontage of less than fifty (50) linear feet makes a connection with such main then the return shall be made in such proportion as the number of linear front feet of such lot bear to the linear foot cost of laying the main, as shown by such assessments, but in no event shall a larger amount be returned to the property owner than for which he was originally assessed.

SEC. 6. All laws relating to special assessments, unless modified herein, shall apply to assessments levied for the extension of water mains.

MR. T. A. LEISEN:⁵ For a number of years mains not demanded by a continuous built-up section were laid on what was designated as the bonus plan, in which the petitioners for the pipe lines were required to pay 15 per cent of the cost of laying those mains. The cost of the main was estimated in advance, and the party petitioning for the main was compelled to pay 15 per cent of the cost of a 6-inch pipe, or its equivalent. If the Water Board considered a larger pipe necessary, it was laid in place of 6-inch, but the petitioner was only called on to pay 15 per cent of the estimated value of the 6-inch pipe laid through that section. That system had some advantages and a great many disadvantages. For instance, if the petitioner wanted to build a house which might be three or four hundred or even a thousand feet away from the nearest main, he had to pay 15 per cent of the total cost of the pipe up to that point. Frequently about a week or two after that pipe was laid, numerous other owners immediately began to build houses

⁵ Civil Engineer, Board of Water Commissioners, Detroit, Mich.

and thereby obtained the free use of that service, unless the petitioner was clever enough to have made some previous arrangement with the intermediate property holders to induce them to share the cost of that laying.

It worked out as I have said fairly satisfactorily, but it was an unjust placement of the cost on some one consumer to the advantage of others. In order to obviate that condition a law was passed about three years ago providing for a general assessment against the property on each side of the street where a main was to be laid. That assessment amounts to 25¢ per foot on each side of the street, making 50¢ per foot in all. The balance of the cost is borne by the Water Board. If Detroit had laid water mains in proportion to the prospective growth of the city, starting ten or fifteen years ago, it would not have been compelled, during the last six or eight years, to have laid such an immense amount of pipe, but prior to that date the city had already begun to grow at such an enormous rate that it had outstripped practically all the public utilities, including the water supply system, and not only the mains but the pumpage facilities were more or less inadequate. This was foreseen nearly ten years ago and a start was made to equip the pumping stations with several additional pumps and also to lay some large mains, but the main feeders did not quite keep pace with pumping facilities and the consequence was that the policy of the Board, ten years ago, was to discourage rather than to encourage the laying of the mains into the outlying districts. It was an unfortunate condition, but I think those are the facts. The result was that during the past six or eight years, we have been forced to work overtime to keep up with that phenomenal growth that Detroit has exhibited.

The financial factor has been met with greater facility than some of the physical propositions we have been forced to encounter. Most of the pipe was laid heretofore out of the surplus earnings of the Water Board in spite of the very low rate which Detroit citizens enjoy. During the past year, a bond issue, amounting to \$12,000,000 was authorized, about \$5,000,000 of which is to be devoted to the filtration works, and the balance of \$7,000,000 principally to extending large arterial mains, 48 inches in diameter or smaller, to reach the outlying sections of the city. Fortunately Detroit has been able to sell those bonds at a remarkably good figure, and up to the present time we have not had any financial difficulties.